

NOTES ON THE WEST AMERICAN SPECIES OF FUSINUS.

BY WILLIAM H. DALL.

The genus *Fusinus*, better known by its preoccupied name of *Fusus* Lamarck, is fairly well represented by species on the Pacific coast.

The largest, most conspicuous, and best known of these is *F. dupetitthouarsi* Kiener, 1840, originally described from a Galapagos Island specimen and which has since been collected at a point as far north of Panama on the mainland as Cerros Island in latitude 28°. It undergoes no great variation in this wide area of distribution.

F. kobelti Dall, 1877, has been collected from the vicinity of Monterey and south to Catalina Island.

F. sulcatus Lamarck, 1822, is found at Panama, and appears to be distinct from *F. fontainei* Orbigny, 1841, which is a native of Peru and Chile, and of which *F. alternatus* Philippi, 1847, is a synonym.

F. colpoicus new species, is found off Guaymas, Gulf of California, and resembles *F. barbarensis* Trask, when the latter is about 60 mm. long, but differs by having 13 instead of 11 axial ribs, which are narrower and with wider interspaces while the revolving threads are sharper and more conspicuously alternated. At a length of 66 mm. it has eight whorls without counting the eroded nucleus; three of the spirals near the periphery are more conspicuous than the rest; at the end of the penultimate whorl there are 6 major and 6 minor spirals which pass over the ribs without becoming nodulous. The aperture and canal together measure 36 mm. in the length, and the canal is conspicuously tortuous. The maximum diameter of the shell is 18 mm. (U. S. N. Mus. No. 111,111).

The peculiar *F. (Roperia) roperia* Dall, 1898, is still only known by the type specimen from San Pedro; *F. cancellarioides* Reeve, 1848, only from the Chilean coast. An unidentified worn shell sent from La Paz by Kantus, seems distinct from the others but is not fit to serve as a basis for a name.

There is a group of species found in the central Californian region which were described by Trask in 1855. *F. traski* Dall,

(new name for *F. rugosus* Trask, not of Lamarck, 1804) is recognized by its abruptly shouldered whorls, and ranges from San Pedro to San Diego.

F. monksæ Dall (new name for *F. robustus* Trask, 1855, not of Beyrich, 1853) is very similar to the next species, but generally heavier and with a shorter canal. It ranges from Banks Island, British Columbia to Pequena Bay on the west side of Lower California.

F. barborensis Trask, ranges from the Oregon coast to San Diego. For a long time it was known only by adolescent specimens, but I have received a pair 135 mm. long by 38 in diameter, dredged off Newport, by Doctor Tremper.

F. ambustus Gould, 1851, ranges from the Gulf of California to Topolobampo, Mexico. The burnt-sienna blotches on the axial ribs from which the species derived its name, though conspicuous on fresh specimens, gradually fade out after some years in the cabinet.

F. harfordi Stearns, from Mendocino County, California, may belong with *Chrysodomus* but the sculpture recalls that of *Fusinus*.

F. panamensis Dall, 1908, is still only known by the original specimens from Panama Bay. There is a small mottled species belonging to the same group (*Aptyxis?*) as *F. pulchellus* Philippi, Mediterranean, which ranges from the Gulf of California to Panama. It has been labeled by some error *F. cinereus* Reeve, (which is Say's *Urosalpinx*) in the collection. It agrees very well with the figure of Reeve's *F. taylorianus* in the Iconica, and until further data are received about Reeve's type which was of unknown habitat, may best retain that name. A specimen has been received as from San Pedro, but I doubt the accuracy of this attribution.

F. luteopictus Dall, 1877, ranges from Monterey to the Gulf of California. The yellow color of the ribs fades in time, leaving the prominences nearly or quite white.

A little brownish species has been received from San Pedro Bay from several collectors, which seems to be undescribed. It has five whorls without the nucleus, four or five strong spiral threads between the sutures on the spire and 13-15 on the last whorl, with a few minute and irregular intercalary threads; the

interspaces are crossed by minute axial lamellae and the last whorl has eight rather ill-defined wide axial ribs, most distinct near the periphery. The shell is about 11 mm. long by 5.5 mm. wide, and 5 mm. of the length is included in the spire. It may take the name of *F. diminutus*.

F. porticus n. sp. This is a small purple-brown form which may perhaps prove not to be a *Fusinus*, yet seems difficult to refer elsewhere, so I adopt the term provisionally. It has three conic, wine-colored, polished, nuclear whorls followed by a little more than four sculptured whorls, having the general profile of a slender *Alectrion*; it has on the last whorl ten axial ribs with wider interspaces; the spiral sculpture consists of fine rather sharp threads, two of which near the periphery are slightly larger, and prominent where they cross the axial ribs, with a single fine thread in the space between them; on each side of this pair between the sutures are three or four finer threads; the spire is longer than the aperture; the outer lip sharp, plain within, no callus on the inner lip, the canal short, twisted and slightly recurved. Height of shell 11.0; of spire 7.0; maximum diameter 5.0 mm. It is an inhabitant of Panama. (U. S. N. M. No. 76275).

F. centrifugus n. sp. Shell with three smooth conoid nuclear whorls, followed by six and a half strongly sculptured whorls; suture appressed; axial sculpture of numerous sharp thin elevated lamellae, raised into a retractively looped frill in front of the suture and similarly but less prominently looped between its intersections with the spiral threads: on the last whorl are eight prominent rounded ribs with subequal interspaces, which extend from the suture to the base; between the sutural frill and the shoulder of the whorl are three inconspicuous spiral threads; on the shoulder one very prominent cord flattened and produced at the summit of each axial rib into a spade-shaped, not pointed, horizontal spine; between this cord and another less prominent cord in front, are one to three small spiral threads; a third still less prominent cord forms the margin of the base in front of which are about a dozen spiral threads which are more prominent on the canal. The color of the shell is brownish, more livid inside the aperture; the canal produced

and straight, the outer lip sharp but probably immature. Height of shell 22; of spire 12; maximum diameter 10 mm. It was collected at the Galapagos Island in 33 fathoms, sandy bottom. Though evidently not full grown, the sculpture of this shell would identify it at any age. (U. S. N. M., 96370).

F. (?) orcutti n. sp. Nuclear whorls lost, the remaining five whorls solid, with appressed suture; axial sculpture of rude lines of growth and (on the last whorl eight) obscure low ribs; spiral sculpture of broad, somewhat irregular, straplike spirals and much smaller spiral threads; of the former there is one at the suture followed by three or four threads; two at the shoulder closely adjacent, followed by two threads; and four or five in front of the periphery alternated by single threads; the color of the shell is light yellow brown with axial rows of dark brown spots on the ribs, the aperture white: the outer lip is sharp, with three or four obscure nodules within the aperture: a thin white callus on the inner lip, the canal short and slightly recurved. Height of shell 17; of spire (without the nucleus) 10; maximum diameter 8 mm.

It was collected at Mazatlan by C. R. Orcutt and resembles a *Latirus* except that the pillar is without plaits. (U. S. N. Mus. No. 252697).

LASMIGONA SUBVIRIDIS CONRAD, REDIVIVUS.

BY L. S. FRIERSON.

Lasmigona subviridis, Conrad. Probably few conchologists are aware of the validity of this name, since it occurs in no synoptical list of *Unionidæ* known to the writer.

Rafinesque published a species, *Unio viridis*, in his Monograph of 1820, a work virtually introduced to American conchologists by Mr. Poulson's translation in 1831.

In the autumn of 1835, Mr. Hyde gave specimens of a *Unio* from the Juniata River to both Dr. Lea, and Mr. Conrad. The latter published the shell, with an excellent figure, on plate 9, of his new fresh-water shell, under the name of *Unio viridis*? Mr. Conrad stated that he was uncertain whether this identifi-